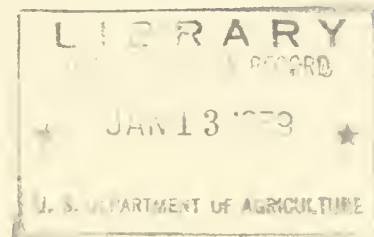


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UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Cotton Division
Washington, D.C



COTTON FIBER AND PROCESSING TEST RESULTS
CROP OF 1958

COTTON FIBER AND PROCESSING TEST RESULTS

Average fiber quality and spinning performance of samples tested through November 28, 1958 show no major change from the previous report. Fiber properties continue to average the same as last year, with an average Micronaire value of 4.3, a maturity index of 78, and an average fiber strength value of 81,000 pounds per square inch. Both nonlint content and picker and card waste are considerably lower than last year, averaging 2.6 percent nonlint content and 7.6 percent picker and card waste as compared with 3.1 percent nonlint content and 9.5 percent picker and card waste in 1957. Strength of 22s yarn is averaging the same as last year at 115 pounds. Yarn appearance grades, however, show an average index of 98 - almost one-half grade below the 102 reported in 1957.

Results contained in this report include midseason selections from the Western areas and the High Plains of Texas; and late-season samples from Mississippi, Louisiana, and Tennessee.

Southeastern Area. Cottons from the Southeastern area continue to show improvement over 1957. An average strength of 22s yarn of 115 pounds is well above the average strength of 110 pounds reported for this area in 1957. Picker and card waste and nonlint content are averaging one percentage point below last year, reflecting the generally higher lint grades reported for this area this year.

South Central Area. Yarn strength and yarn appearance grades are lower this year in the South Central states as compared with the same period in 1957. Strength of 22s yarn averages 110 pounds in the South Central area this year as compared with an average yarn strength of 114 pounds last year. The average yarn appearance index of 95 for 1958 is 6 units below the average index of 101 reported last year.

Southwestern Area. Southwestern area cottons show about the same trends as those from the South Central states, being lower in yarn strength and yarn appearance grades than in 1957. These cottons are also lower in nonlint content and picker and card waste percentages than last year.

Western Area. Samples received from the Western states are now on about the same level as that observed last year in most respects. An average picker and card waste of 7.2 percent in the Western area shows some improvement over last year, being almost one percentage point below the average of 8.1 percent reported in 1957. Yarn appearance grades improved slightly from the previous report and are now on about the same level as last year.

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Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, crop of 1958--Continued

Variety	:	Deltapine 15
State	: Alabama :	California : Louisiana
Market area	:Tuscumbia :	Brawley : Bonita :Shreveport
Percentage of variety at gin	: 100 :	100 : 93 : 100
Period of harvest	: Late :	Midseason: Late : Late
RAW COTTON QUALITY	:	:
Classification (official standards):	:	:
Grade-----designation:	M	SIM M M
Staple length-----inches:	1-1/16:	1-1/32: 1-1/16: 1-1/16
Fiber length (Fibrograph):	:	:
Upper half mean-----inches:	1.06	1.04 1.08 1.09
Uniformity-----ratio:	79	74 77 76
Fiber fineness and maturity:	:	:
Micronaire-----reading <u>1</u> /:	4.2	4.8 4.2 4.1
Fineness (Causticaire)---ug/inch <u>2</u> /:	4.3	4.6 4.4 4.0
Maturity (")-----index:	78	82 77 79
Fiber tensile strength (Pressley):	:	:
Zero gauge-----l,000 p.s.i.:	77	86 76 79
" " -----grams per tex <u>3</u> /:	38.1	42.6 37.6 39.1
1/8" " ----- " " " :	21.1	22.8 21.5 22.4
Nonlint content: <u>4</u> /	:	:
Visible waste-----percent:	1.7	2.7 1.1 1.3
Invisible waste----- "	0.3	1.0 0.8 1.3
Total nonlint content----- "	2.0	3.7 1.9 2.6
Color of raw cotton: <u>5</u> /	:	:
Reflectance-----Rd:	75.6	76.8 74.6 76.5
Yellowness-----+b:	8.6	7.9 8.3 7.6
Sugar content-----percent:	0.2	0.2 0.1 0.0
Acid-alkaline value-----pH units <u>6</u> /:	6.9	6.8 7.3 6.8
PROCESSING RESULTS	:	:
Manufacturing waste:	:	:
Picker and card-----percent:	5.9	7.9 6.3 6.5
Neps-----per 100 sq. in. of card web:	21	7 9 18
Yarn skein strength:	:	:
22s (26.8 tex)-----pounds:	120	115 115 119
50s (11.8 ")----- "	42	39 39 42
Average break factor----- <u>7</u> /:	2370	2240 2240 2359
Yarn appearance:	:	:
22s (26.8 tex)-----grade:	C+	C+ C+ C+
50s (11.8 ")----- "	C+	D+ C D+
Average yarn appearance----index <u>8</u> /:	100	90 95 90

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For footnotes see back page.

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, crop of 1958--Continued

Variety	:	Deltapine 15
State	:Louisiana :	Mississippi
Market area	:Waterproof: Grenada :	Senatobia: Woodland
Percentage of variety at gin	: 94 : 90 :	95 : 98
Period of harvest	: Late : Late :	Late : Late
RAW COTTON QUALITY	:	:
Classification (official standards):	:	:
Grade-----designation:	SIM	M
Staple length-----inches:	1-1/16:	1-1/16:
Fiber length (Fibrograph):	:	:
Upper half mean-----inches:	1.08	1.09
Uniformity-----ratio:	78	77
Fiber fineness and maturity:	:	:
Micronaire-----reading <u>1</u> /:	4.6	4.4
Fineness (Causticaire)---ug/inch <u>2</u> /:	4.5	4.6
Maturity (")-----index:	81	77
Fiber tensile strength (Pressley):	:	:
Zero gauge-----1,000 p.s.i.	87	79
" " -----grams per tex <u>3</u> /:	43.1	39.1
1/8" " ----- " " "	23.7	20.6
Nonlint content: <u>4</u> /	:	:
Visible waste-----percent:	0.9	1.7
Invisible waste-----"	0.9	1.4
Total nonlint content-----"	1.8	3.1
Color of raw cotton: <u>5</u> /	:	:
Reflectance-----Rd:	72.5	75.6
Yellowness-----+b:	7.1	7.8
Sugar content-----percent:	0.2	0.1
Acid-alkaline value-----pH units <u>6</u> /:	7.2	7.0
PROCESSING RESULTS	:	:
Manufacturing waste:	:	:
Picker and card-----percent:	6.7	7.7
Neps-----per 100 sq. in. of card web:	14	6
Yarn skein strength:	:	:
22s (26.8 tex)-----pounds:	126	117
50s (11.8 ")-----"	44	40
Average break factor----- <u>7</u> /:	2486	2287
Yarn appearance:	:	:
22s (26.8 tex)-----grade:	C+	C+
50s (11.8 ")-----"	C	C+
Average yarn appearance----index <u>8</u> /:	95	100

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For footnotes see back page.

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, crop of 1958--Continued

Variety	Deltapine 15			Deltapine-TPSA
State	Missouri	Oklahoma	Texas	Texas
Market area	Hayti	Idabell	Texarkana	Bryan
Percentage of variety at gin	75	98	90	100
Period of harvest	Late	Midseason	Midseason	Late
RAW COTTON QUALITY				
Classification (official standards):				
Grade-----designation:	M	SIM	M	IM
Staple length-----inches:	1-1/16	1-1/16	1-3/32	1
Fiber length (Fibrograph):				
Upper half mean-----inches:	1.05	1.09	1.11	1.03
Uniformity-----ratio:	75	76	79	75
Fiber fineness and maturity:				
Micronaire-----reading 1/	3.6	4.4	4.6	4.3
Fineness (Causticaire)---ug/inch 2/	3.7	4.3	4.7	4.4
Maturity (")-----index:	75	81	79	78
Fiber tensile strength (Pressley):				
Zero gauge-----1,000 p.s.i.	78	79	77	77
" " -----grams per tex 3/	38.6	39.1	38.1	38.1
1/8" " ----- " " "	20.5	21.2	20.1	19.6
Nonlint content: 4/				
Visible waste-----percent:	1.0	2.0	1.4	2.4
Invisible waste----- " :	0.9	1.2	1.2	1.1
Total nonlint content----- " :	1.9	3.2	2.6	3.5
Color of raw cotton: 5/				
Reflectance-----Rd:	77.7	76.3	76.7	72.0
Yellowness-----+b:	8.0	8.1	8.0	7.6
Sugar content-----percent:	0.2	0.0	0.0	0.0
Acid-alkaline value-----pH units 6/	6.8	8.3	7.8	8.4
PROCESSING RESULTS				
Manufacturing waste:				
Picker and card-----percent:	5.9	7.7	7.3	9.4
Neps-----per 100 sq. in. of card web:	13	7	7	15
Yarn skein strength:				
22s (26.8 tex)-----pounds:	120	116	114	102
50s (11.8 ")----- " :	42	39	39	36
Average break factor-----7/	2370	2251	2229	2022
Yarn appearance:				
22s (26.8 tex)-----grade:	C	B	C+	C+
50s (11.8 ")----- " :	D+	C+	C	D
Average yarn appearance-----index 8/	85	105	95	85

Continued on page 9

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, crop of 1958--Continued

Variety	:Deltapine Fox:		Lankart		
State	: Missouri	:	Oklahoma	:	Texas
Market area	: Essex	:	Hinton	: Minco	: Anton
Percentage of variety at gin	: 96	:	95	: 90	: 100
Period of harvest	: Late	:	Late	: Late	:Midseason
RAW COTTON QUALITY	:	:	:	:	:
Classification (official standards):	:	:	:	:	:
Grade-----designation:	SIM	:	SMLtsp	M	SIM
Staple length-----inches:	1-1/16	:	15/16	1	31/32
Fiber length (Fibrograph):	:	:	:	:	:
Upper half mean-----inches:	1.04	:	.93	1.00	.98
Uniformity-----ratio:	74	:	77	80	80
Fiber fineness and maturity:	:	:	:	:	:
Micronaire-----reading 1/:	3.8	:	4.5	4.8	4.4
Fineness (Causticaire)---ug.inch 2/:	3.8	:	5.1	5.0	4.7
Maturity (")-----index:	76	:	76	80	78
Fiber tensile strength (Pressley):	:	:	:	:	:
Zero gauge-----1,000 p.s.i.:	77	:	79	80	72
" " -----grams per tex 3/:	38.1	:	39.1	39.6	35.6
1/8" " ----- " " " " 4/:	20.8	:	19.2	20.5	19.2
Nonlint content: 4/	:	:	:	:	:
Visible waste-----percent:	2.2	:	1.5	1.1	1.0
Invisible waste----- "	0.9	:	1.0	0.8	1.5
Total nonlint content----- "	3.1	:	2.5	1.9	2.5
Color of raw cotton: 5/	:	:	:	:	:
Reflectance-----Rd:	75.6	:	75.5	76.3	73.5
Yellowness-----+b:	7.3	:	8.0	8.9	8.1
Sugar content-----percent:	0.3	:	0.3	0.2	0.2
Acid-alkaline value-----pH units 6/:	6.4	:	6.5	7.2	8.1
PROCESSING RESULTS	:	:	:	:	:
Manufacturing waste:	:	:	:	:	:
Picker and card-----percent:	7.8	:	8.5	7.0	7.1
Neps-----per 100 sq. in. of card web:	14	:	8	4	8
Yarn skein strength:	:	:	:	:	:
22s (26.8 tex)-----pounds:	115	:	98	110	92
50s (11.8 ")----- "	39	:	32	37	30
Average break factor-----7/:	2240	:	1878	2135	1762
Yarn appearance:	:	:	:	:	:
22s (26.8 tex)-----grade:	C	:	C+	B	C+
50s (11.8 ")----- "	D+	:	D+	C+	D+
Average yarn appearance----index 8/:	85	:	90	105	90

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For footnotes see back page.

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, crop of 1958--Continued

Variety	:	Lankart		
State	:	Texas		
Market area	:	Cooper	:	Lubbock : Waxahachie
Percentage of variety at gin	:	85	:	90 : 90
Period of harvest	:	Late	:	Midseason : Late
RAW COTTON QUALITY	:		:	
Classification (official standards):	:		:	
Grade-----designation:	Mltsp	:	SIM	: SIMltsp
Staple length-----inches:	15/16	:	1	: 15/16
Fiber length (Fibrograph):		:		:
Upper half mean-----inches:	.93	:	.99	: .94
Uniformity-----ratio:	80	:	77	: 77
Fiber fineness and maturity:		:		:
Micronaire-----reading <u>1</u> /:	5.0	:	4.5	: 4.7
Fineness (Causticaire)---ug/inch <u>2</u> /:	5.3	:	4.5	: 5.1
Maturity (")-----index:	79	:	80	: 78
Fiber tensile strength (Pressley):		:		:
Zero gauge-----1,000 p.s.i.:	82	:	74	: 79
" " -----grams per tex <u>3</u> /:	40.6	:	36.6	: 39.1
1/8" " ----- " " " " " " :	19.8	:	19.5	: 19.4
Nonlint content: <u>4</u> /		:		:
Visible waste-----percent:	1.6	:	1.6	: 1.8
Invisible waste----- " :	1.3	:	1.3	: 1.9
Total nonlint content----- " :	2.9	:	2.9	: 3.7
Color of raw cotton: <u>5</u> /		:		:
Reflectance-----Rd:	71.5	:	73.4	: 68.1
Yellowness-----+b:	9.3	:	7.8	: 9.5
Sugar content-----percent:	0.1	:	0.3	: 0.0
Acid-alkaline value-----pH units <u>6</u> /:	7.0	:	7.3	: 7.8
PROCESSING RESULTS	:		:	
Manufacturing waste:		:		:
Picker and card-----percent:	8.9	:	7.2	: 10.8
Neps-----per 100 sq. in. of card web:	7	:	12	: 7
Yarn skein strength:		:		:
22s (26.8 tex)-----pounds:	94	:	96	: 88
50s (11.8 ")----- " :	30	:	33	: 28
Average break factor----- <u>7</u> /:	1734	:	1881	: 1668
Yarn appearance:		:		:
22s (26.8 tex)-----grade:	C+	:	C	: C+
50s (11.8 ")----- " :	D+	:	D	: D+
Average yarn appearance----index <u>8</u> /:	90	:	80	: 90

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Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, crop of 1958--Continued

Variety	:	Lankart-611	:	Northern Star				
State	:	Texas	:	Texas				
Market area	:	Idalou	:	Memphis	:	O'Brien	:	Silverton
Percentage of variety at gin	:	100	:	90	:	90	:	80
Period of harvest	:	Midseason	:	Midseason	:	Late	:	Midseason
RAW COTTON QUALITY	:	:	:	:	:	:	:	:
Classification (official standards):	:	:	:	:	:	:	:	:
Grade-----designation:	:	SIM	:	SMTsp	:	SIM	:	SIM
Staple length-----inches:	:	1	:	15/16	:	15/16	:	31/32
Fiber length (Fibrograph):	:	:	:	:	:	:	:	:
Upper half mean-----inches:	:	1.00	:	.92	:	.96	:	.97
Uniformity-----ratio:	:	76	:	77	:	78	:	78
Fiber fineness and maturity:	:	:	:	:	:	:	:	:
Micronaire-----reading <u>1</u> /	:	3.8	:	4.4	:	4.6	:	3.7
Fineness (Causticaire)---ug/inch <u>2</u> /	:	3.9	:	4.4	:	4.9	:	4.0
Maturity (")-----index:	:	75	:	79	:	78	:	73
Fiber tensile strength (Pressley):	:	:	:	:	:	:	:	:
Zero gauge-----1,000 p.s.i.	:	80	:	78	:	81	:	78
" " -----grams per tex <u>3</u> /	:	39.6	:	38.6	:	40.1	:	38.6
1/8" " ----- " " "	:	20.5	:	19.7	:	20.4	:	20.1
Nonlint content: <u>4</u> /	:	:	:	:	:	:	:	:
Visible waste-----percent:	:	1.2	:	1.1	:	1.5	:	1.6
Invisible waste----- "	:	1.4	:	1.5	:	1.6	:	2.2
Total nonlint content----- "	:	2.6	:	2.6	:	3.1	:	3.8
Color of raw cotton: <u>5</u> /	:	:	:	:	:	:	:	:
Reflectance-----Rd:	:	74.3	:	76.5	:	74.6	:	76.3
Yellowness-----+b:	:	7.9	:	9.1	:	8.9	:	8.0
Sugar content-----percent:	:	0.3	:	0.2	:	0.0	:	0.3
Acid-alkaline value-----pH units <u>6</u> /	:	7.3	:	7.3	:	7.5	:	7.4
PROCESSING RESULTS	:	:	:	:	:	:	:	:
Manufacturing waste:	:	:	:	:	:	:	:	:
Picker and card-----percent:	:	7.5	:	8.2	:	8.7	:	8.7
Neps-----per 100 sq. in. of card web:	:	8	:	7	:	11	:	12
Yarn skein strength:	:	:	:	:	:	:	:	:
22s (26.8 tex)-----pounds:	:	106	:	99	:	100	:	107
50s (11.8 ")----- "	:	36	:	32	:	33	:	36
Average break factor----- <u>7</u> /	:	2066	:	1889	:	1925	:	2077
Yarn appearance:	:	:	:	:	:	:	:	:
22s (26.8 tex)-----grade:	:	C	:	C+	:	C	:	C+
50s (11.8 ")----- "	:	D+	:	D+	:	D+	:	D+
Average yarn appearance----index <u>8</u> /	:	85	:	90	:	85	:	90

For footnotes see back page.

Table 3.--Results of classification, fiber tests, and carded and combed (in parentheses) yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 6-1/2 pounds per hour and a twist multiplier of 3.80, crop of 1958

Variety	:	Acala 1517C			
State	:	Arizona	:	New Mexico	
Market area	:	Bowie	:	Deming	: Garfield : L.Arthur
Percentage of variety at gin	:	100	:	100	: 100 : 90
Period of harvest	:	Midseason	:	Midseason	: Midseason:Midseason
RAW COTTON QUALITY	:	:	:	:	:
Classification (official standards):	:	:	:	:	:
Grade-----designation:	:	SM	:	M	: M : M
Staple length-----inches:	:	1-5/32	:	1-1/8	: 1-1/8 : 1-3/32
Fiber length (Fibrograph):	:	:	:	:	:
Upper half mean-----inches:	:	1.15	:	1.15	: 1.12 : 1.11
Uniformity-----ratio:	:	81	:	81	: 79 : 77
Fiber fineness and maturity:	:	:	:	:	:
Micronaire-----reading <u>1</u> /:	:	3.8	:	3.6	: 3.4 : 3.9
Fineness (Causticaire)---ug/inch <u>2</u> /:	:	3.8	:	3.5	: 3.4 : 4.0
Maturity (")-----index:	:	77	:	76	: 75 : 76
Fiber tensile strength (Pressley):	:	:	:	:	:
Zero gauge-----1,000 p.s.i.:	:	82	:	83	: 83 : 85
" " -----grams per tex <u>3</u> /:	:	40.6	:	40.9	: 41.0 : 41.9
1/8" " ----- " " " " :	:	24.5	:	24.6	: 25.4 : 24.1
Nonlint content: <u>4</u> /	:	:	:	:	:
Visible waste-----percent:	:	0.7	:	0.9	: 1.2 : 1.4
Invisible waste----- "	:	0.9	:	0.6	: 0.7 : 0.9
Total nonlint content----- "	:	1.6	:	1.5	: 1.9 : 2.3
Color of raw cotton: <u>5</u> /	:	:	:	:	:
Reflectance-----Rd:	:	78.0	:	79.3	: 79.3 : 76.0
Yellowness-----+b:	:	8.1	:	7.3	: 7.0 : 6.8
Sugar content-----percent:	:	0.2	:	0.3	: 0.1 : 0.1
Acid-alkaline value-----pH units <u>6</u> /:	:	6.7	:	6.9	: 7.6 : 8.5
PROCESSING RESULTS	:	:	:	:	:
Manufacturing waste:	:	:	:	:	:
Picker and card-----percent:	:	6.7	:	7.3	: 7.6 : 7.2
Comber----- "	:	12.6	:	12.6	: 13.1 : 13.1
Neps-----per 100 sq. in. of card web:	:	26	:	22	: 27 : 19
Yarn skein strength:	:	:	:	:	:
22s (26.8 tex)-----pounds:	:	133(142)	:	136(148)	: 136(149): 133(142)
50s (11.8 ")----- "	:	47(51)	:	49(52)	: 48(52): 46(50)
Average break factor----- <u>7</u> /:	:	2638(2837)	:	2721(2928)	: 2696(2939): 2613(2812)
Yarn appearance:	:	:	:	:	:
22s (26.8 tex)-----grade:	:	C (C+)	:	C+(C+)	: C+(C+) : C+(B)
50s (11.8 ")----- "	:	C (C+)	:	C+(C+)	: C (C+) : C+(C+)
Average yarn appearance----index <u>8</u> /:	:	90(100)	:	100(100)	: 95(100) : 100(105)

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For footnotes see back page.

Table 3.--Results of classification, fiber tests, and carded and combed (in parentheses) yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 6-1/2 pounds per hour and a twist multiplier of 3.80, crop of 1958--
Continued

Variety	:	Acala 1517C	:	Acala 1517BR
State	:	N.Mexico:	Texas :	Texas
Market area	:	Loving :	Canutillo:	Seminole :Van Horn
Percentage of variety at gin	:	92 :	100 :	70 : 99
Period of harvest	:	Midseason:	Midseason:	Midseason:Midseason
RAW COTTON QUALITY	:	:	:	:
Classification (official standards):	:	:	:	:
Grade-----designation:	M	M	SIM	M
Staple length-----inches:	1-5/32	1-1/8	1-3/32	1-1/8
Fiber length (Fibrograph):	:	:	:	:
Upper half mean-----inches:	1.12	1.10	1.10	1.09
Uniformity-----ratio:	79	76	79	77
Fiber fineness and maturity:	:	:	:	:
Micronaire-----reading <u>1</u> /:	4.0	3.8	4.0	4.0
Fineness (Causticaire)---ug/inch <u>2</u> /:	4.1	3.8	4.1	3.9
Maturity (")-----index:	76	77	76	78
Fiber tensile strength (Pressley):	:	:	:	:
Zero gauge-----1,000 p.s.i.:	88	89	85	84
" " -----grams per tex <u>3</u> /:	43.3	44.0	42.1	41.7
1/8" " ----- " " " " <u>3</u> /:	24.5	25.2	23.5	23.7
Nonlint content: <u>4</u> /	:	:	:	:
Visible waste-----percent:	1.2	1.0	1.4	1.0
Invisible waste----- " :	0.7	1.3	0.7	0.8
Total nonlint content----- " :	1.9	2.3	2.1	1.8
Color of raw cotton: <u>5</u> /	:	:	:	:
Reflectance-----Rd:	75.5	75.7	73.5	77.4
Yellowness-----+b:	7.3	8.1	7.9	7.9
Sugar content-----percent:	0.0	0.1	0.1	0.1
Acid-alkaline value-----pH units <u>6</u> /:	8.7	7.0	7.7	8.2
PROCESSING RESULTS	:	:	:	:
Manufacturing waste:	:	:	:	:
Picker and card-----percent:	6.6	7.2	7.4	7.6
Comber----- " :	13.6	15.0	13.9	14.8
Neps-----per 100 sq. in. of card web:	22	30	24	22
Yarn skein strength:	:	:	:	:
22s (26.8 tex)-----pounds:	133(143)	133(147)	130(140)	128(140)
50s (11.8 ")----- " :	47(51)	47(51)	46(50)	46(49)
Average break factor----- <u>7</u> /:	2638(2848)	2638(2892)	2580(2790)	2558(2765)
Yarn appearance:	:	:	:	:
22s (26.8 tex)-----grade:	C+(B)	C+(C+)	C+(C+)	B (B)
50s (11.8 ")----- " :	C (C+)	C (C)	C (C+)	C (C+)
Average yarn appearance----index <u>8</u> /:	95(105)	95(95)	95(100)	100(105)

Continued on page 14

Table 3.--Results of classification, fiber tests, and carded and combed (in parentheses) yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 6-1/2 pounds per hour and a twist multiplier of 3.80, crop of 1958--
Continued

Variety	: Acala 4-42	: Coker 100 W	: Delfos 9169
State	: California	: North Carolina	: Missouri
Market area	: Fresno	: Shelby	: Hornersville
Percentage of variety at gin	: 100	: 100	: 90
Period of harvest	: Late	: Late	: Late
RAW COTTON QUALITY	:	:	:
Classification (official standards):	:	:	:
Grade-----designation:	SIM+	SIM	SIM
Staple length-----inches:	1-1/32	1-1/16	1-1/16
Fiber length (Fibrograph):	:	:	:
Upper half mean-----inches:	1.05	1.03	1.07
Uniformity-----ratio:	77	81	73
Fiber fineness and maturity:	:	:	:
Micronaire-----reading 1/:	3.8	4.1	3.4
Fineness (Causticaire)---ug/inch 2/:	3.9	4.1	3.6
Maturity (")-----index:	76	78	70
Fiber tensile strength (Pressley):	:	:	:
Zero gauge-----1,000 p.s.i.:	85	77	76
" " -----grams per tex 3/:	42.3	38.1	37.4
1/8" " ----- " " " " :	24.3	21.7	21.1
Nonlint content: 4/	:	:	:
Visible waste-----percent:	2.6	2.2	2.3
Invisible waste----- " :	0.7	0.8	1.0
Total nonlint content----- " :	3.3	3.0	3.3
Color of raw cotton: 5/	:	:	:
Reflectance-----Rd:	76.5	76.3	71.0
Yellowness-----+b:	7.5	8.6	7.3
Sugar content-----percent:	0.3	0.2	0.3
Acid-alkaline value-----pH units 6/:	6.3	6.6	6.4
PROCESSING RESULTS	:	:	:
Manufacturing waste:	:	:	:
Picker and card-----percent:	8.1	9.1	9.5
Comber----- " :	12.9	14.8	16.1
Neps-----per 100 sq. in. of card web:	25	13	44
Yarn skein strength:	:	:	:
22s (26.8 tex)-----pounds:	134(147)	120(129)	113(125)
50s (11.8 ")----- " :	48(52)	41(45)	39(43)
Average break factor-----7/:	2674(2917)	2345(2544)	2218(2450)
Yarn appearance:	:	:	:
22s (26.8 tex)-----grade:	C (C+)	B (B)	D+(C)
50s (11.8 ")----- " :	C (C)	C+(B)	D (D+)
Average yarn appearance----index 8/:	90(95)	105(110)	75(85)

Table 4.--Results of classification, fiber tests, and combed yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 4-1/2 pounds per hour and a twist multiplier of 3.60, crop of 1958

Variety	:	Pima S-1	
State	:	Arizona	Texas
Market area	:	Stanfield	Peoria
Percentage of variety at gin	:	100	100
Period of harvest	:	Midseason	Midseason
	:		Early
RAW COTTON QUALITY	:	:	:
Classification (official standards):	:	:	:
Grade-----designation:	3	3	3
Staple length-----inches:	1-7/16	1-3/8	1-7/16
Fiber length (array):	:	:	:
Upper quartile-----inches:	1.42	1.39	1.37
Coefficient of variability--percent:	30	29	30
Fiber fineness and maturity:	:	:	:
Micronaire-----reading 1/:	4.0	3.8	3.6
Fineness (Causticaire)---ug/inch 2/:	3.6	3.4	3.3
Maturity (")-----index:	80	79	78
Fiber tensile strength (Pressley):	:	:	:
Zero gauge-----1,000 p.s.i.:	101	101	97
" " -----grams per tex 3/:	49.9	49.9	47.9
1/8" " ----- " " " " :	34.5	33.5	34.2
Nonlint content: 4/	:	:	:
Visible waste-----percent:	1.4	1.1	1.8
Invisible waste----- " :	0.5	0.6	0.9
Total nonlint content----- " :	1.9	1.7	2.7
Color of raw cotton: 5/	:	:	:
Reflectance-----Rd:	71.1	70.0	69.5
Yellowness-----+b:	10.2	11.1	10.2
Sugar content-----percent:	0.2	0.3	0.0
Acid-alkaline value-----pH units 6/:	6.7	6.7	6.8
PROCESSING RESULTS	:	:	:
Manufacturing waste:	:	:	:
Picker and card-----percent:	9.0	10.4	9.3
Comber----- " :	13.7	13.9	14.0
Neps-----per 100 sq. in. of card web:	9	14	14
Yarn skein strength:	:	:	:
50s (11.8 tex)-----pounds:	72	70	70
80s (7.4 ")----- " :	40	39	38
Average break factor-----7/:	3400	3310	3270
Yarn appearance:	:	:	:
50s (11.8 tex)-----grade:	B+	B+	B+
80s (7.4 ")----- " :	B+	B	B
Average yarn appearance----index 8/:	120	115	115

For footnotes see back page.

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FOOTNOTES

- 1/ Fiber fineness and maturity in combination as measured on untreated samples using the curvilinear scale for upland cotton.
- 2/ Fineness and maturity as determined by the Causticaire method using the Micronaire instrument.
- 3/ Tex is the universal unit for designating linear density of textile materials as adopted by the International Standards Organization (ISO). A tex unit equals the weight in grams of 1,000 meters of the material.
- 4/ As determined by means of the Shirley Analyzer.
- 5/ Determined by the Nickerson-Hunter Colorimeter on raw stock. Rd values indicate percent reflectance from 0 to 100 and +b values indicate degree of yellowness.
- 6/ Values below 7.0 indicate acidity. Values above 7.0 indicate alkalinity which when associated with abnormally low sugar content may indicate fiber degradation due to weathering or from the action of micro-organisms.
- 7/ Based on yarn skein strength (number x strength) of the two yarn numbers spun.
- 8/ Based on two numbers spun. Index of average quality equals 100.